

Modiolo (*Lithodomus*?) *inflata* Whitf. Vol. I, p. 197, pl. XXVI, figs. 13, 14.

Inoceramus sagensis Owen. Vol. I, p. 76, pls. XIV, XV, figs. 15, 1, 2.

Inoceramus sagensis var. *quadrans* Whitf. Vol. I, p. 79, pl. XV, fig. 16.

Cardium sp.

DESCRIPTION OF A NEW FOSSIL CYPRÆA.

BY JOHN H. CAMPBELL.

Cypræa Squyeri n. s. Plate II, figs. 1, 2.

Shell ovate-oblong, attenuated at the extremities. Spire prominent, showing four whorls; outer lip thickened and having on the inner edge thirteen or fourteen teeth. Anterior half of the aperture wide, but contracted at the extremity, posterior end contracted and projecting slightly beyond the spire. Under the magnifying glass the shell shows strong revolving raised lines and striæ. Length 20 mm., width 11 mm., height 9 mm.

A notice of the finding of this shell by Mr. Homer Squyer of Mingusville, Mont., in the cretaceous formation (Fox Hills Group) of eastern Montana, and the above proposed name, were published in the *NAUTILUS* Vol. VI, p. 50. This shell resembles in outline the recent *Cypræa stolidus*, but its very prominent spire would separate it from this group. Shell structure is wanting on most of its dorsal surface and the inner lip obscured by the hard matrix, which it would be inadvisable to remove. In a recent letter from Mr. Squyer he says "This summer while looking for fossils I found the outer lip of the imperfect specimen, found at the time I obtained the type. This specimen I have sent to the U. S. National Museum." The type has been placed in the collection of the American Association of Conchologists.

PRELIMINARY NOTICE OF NEW SPECIES OF LAND-SHELLS FROM THE GALAPAGOS ISLANDS, COLLECTED BY DR. G. BAUR.

BY WM. H. DALL.

Bulimulus (*Næsiotus*) *duncanus* n. s.

Shell short, stout, inflated, thin, with wrinkled and slightly gran-

ulose surface and six and a half whorls; apex rather pointed, whorls rapidly enlarging, the suture behind the last whorl deeper than the rest, aperture relatively small, rather oblique; the lip simple, not reflected, a single tubercle on the body whorl well within the aperture and about equidistant from either lip; umbilicus perforate, narrow. Alt. of shell 18; of last whorl 12.5; diam. of shell 11 mm.

Duncan Island, Baur; no living ones seen.

Bulimulus (Næsiotus) amastroides Ancey var. **Anceyi** Dall.

Shell resembling *B. amastroides* Ancey but with more plicate surface, ruder aspect, smaller mouth and more angular periphery. Lon. 9, lat. 4.5 mm.

Chatham Island, 1600 feet; Baur.

This may prove merely a depauperate variety of *B. amastroides*, but at first sight it looks very different.

Bulimulus jacobii var. **vermiculatus** Dall.

Shell with five and a half sharply granulated, wrinkled whorls; suture deep, aperture small, simple, thin-edged; umbilicus perforate, rather large but not funicular. Lon. 8, lat 5.5, alt. of last whorl 6.0 mm.

James Island at James Bay, Baur.

Resembles a dwarf *B. jacobii* with very sharp, beaded, alternate granulations in spiral rows; transverse wrinkles small but distinct; the spire pointed but the apex rather blunt.

Bulimulus olla Dall. (*B. jacobii* Reeve, Icon., not of Sby., Conch. Illustr.)

Duncan, Indefatigable, and Barrington Islands, Dr. Baur.

This shell is closely related to *B. jacobii* and was figured by Reeve under the name of *jacobii*. The original *jacobii* was sent by Cuming to Dr. Lea and subsequently a specimen of Reeve's form was added by Mr. Cuming. These are now in the Nat. Museum.

The true *jacobii* is smaller, and is sharply spirally sculptured with fine lines of beaded granules alternating in size, every fifth or sixth row being larger. It has six inflated whorls and a pale peripheral band. *B. olla* has a nearly smooth almost polished surface, only marked with incremental faint lines, seven whorls and a very bulbous pillar. It is a larger shell than the original *jacobii*. The latter comes from James, Albemarle, Charles and Chatham Islands, in the wooded zone, while *B. olla* inhabits the grassy upper zone.

Bulimulus (Næsiotus) tortuganus n. s.

Shell small, solid, moderately elongated with six and a half whorls; the earlier whorls subtranslucent madder brown with a pale peripheral stripe, more or less silky and sculptured with very fine spiral lines; sutures very distinct; later whorls malleated, wrinkled or pecked; rude, fleshy white, with a variably large perforate umbilicus; aperture small, with a lump on the pillar and another within the middle of the outer lip; lips thickened, white, slightly reflected, the throat brownish, body with a thin, transparent callus. Lon. of shell 12, of aperture 5·5; max. diam. of shell 7 mm.

La Tortuga, grassy zone, South Albermale, Baur.

This shell which is very characteristic seems to be abundant where found by Dr. Baur. It seems nearest to *B. simrothi* Reibisch. of the described species. It is remarkable for the illustrations it gives of the varied influence of the environment on different individuals. The sculpture of the last whorl recalls that of *B. rugiferus*. The young is hispid and colored like that of *unifasciatus*, but is narrower; the pale peripheral band is almost wholly obscured in the adult and the hairs are soon lost.

Bulimulus (Næsiotus) Bauri n. s.

Shell small, short, stout, with a dark rapidly attenuated spire, distinct suture, and opaque yellow-brown last whorl; whorls about seven, the earlier ones dark livid purple with straw colored streaks, paler at the suture, rude and malleated; last whorl inflated, more or less transversely wrinkled, somewhat polished; umbilicus closed or a mere chink; aperture subquadrate, angulated behind and at the base of the pillar; pillar short, oblique; lips simple, thick, especially across the body where the callus has a raised edge; throat white. Lon. of shell 10, of aperture 4·5; max. lat. of shell 6·5 mm.

Hibernating on the under side of leaves of plants at the Southwest end of Chatham Island, 1600 ft. above the sea, Dr. Baur.

This is one of the most distinctive species of the whole group.

Hyalinia chathamensis n. s.

Shell small, thin, straw colored, depressed, with four rounded polished whorls; suture distinct; sculpture of numerous radiating, slightly flexuous, indented lines; umbilicus deep, exhibiting all the volutions, but rather narrow. Max. diam. 3, min. diam. 2·25 mm.

Alt. of shell 1·30 mm.

Chatham Island, 1600 feet, 1 specimen, Dr. Baur.

This shell recalls *H. arborea* Say, but is much smaller and has a different umbilicus. In the characters of the aperture, etc., not mentioned above, it duplicates *arborea*.

Conulus galapaganus n. s.

Shell close to *C. fulvus*, but has five whorls to four in a specimen of *fulvus* of the same diameter; it has a very well marked suture and the whorls between the sutures are more rounded than in *fulvus*. The height of *C. galapaganus* is greater in proportion to the number of whorls. Alt. of shell 3.25; max. diam. of shell 2.5 mm.

Chatham Island, 1600 ft., Dr. Baur.

This shell appears to differ from all the forms like *fulvus*, *selenkai*, *cæcocides*, etc., by its smaller size, very brilliant surface, inflated whorls and number of turns. It wants entirely the spiral striation of *Zonites bauri* which is a much larger and more depressed shell. In fact it seems like an elevated, dwarfed and inflated *C. fulvus*.

There are probably other Helices on the islands which have not yet been collected.

Succinea corbis n. s.

Shell small, of two and a half whorls, to which a black mould adheres with tenacity. The first whorl and a half are salmon pink in the adult but the young of the same size are pale amber. In the adult the last whorl is of a pale straw color. The shell resembles *S. wolffi* in form but is smaller and has a more contracted aperture; it is instantly recognized, when examined with a good lens, by its surface which is minutely shagreened all over with an excessively fine network of closely reticulated incised lines. Alt. of shell 4., max. diam. 4; extreme length of aperture 4 mm.

S. Albemarle Island on dry bones of turtles, Dr. Baur.

The remarkable sculpture is not visible to the naked eye except as a sort of hoary bloom on the surface. Under a compound microscope it looks like closely woven basket work. I have examined a great many Succineas without finding any other species possessing this character. The sparse dichotomous impressed sculpture which appears on Succineas from Samoa and other oceanic islands and is occasionally visible on *S. bettii* is an entirely different thing.

I may add that the *S. bettii* var. *brevior* of Smith, is in my opinion distinct from *S. bettii* and should be raised as *S. brevoir* to specific rank. I have examined a large number of both forms. *S. bettii* is a species of the wooded zone, *S. breviar* of the dry zone. It is probable that *S. wolfi* Reibisch may be only a variety of *S. bettii*.

The final report on Dr. Baur's collections will not long be delayed. The species will be figured and their anatomical characters discussed. The most important fact thus far determined is the close alliance of all the *Nesiotes*, *Rhaphiellus* and *Pleuropyrghus* to the American *Bulimuli* of the type of *B. serperastrus*. The different forms of the shell are dynamic not genetic differences, and there is no doubt as to the exclusively American type of the whole fauna, when the groups represented are not of world wide distribution.

PRELIMINARY NOTE ON THE SPECIES OF STROBILOPS.¹

BY H. A. PILSBRY.

The United States species of this genus have generally been believed to be but two in number, the "*Helix*" *labyrinthica* of Say, and *Hubbardi* of A. D. Brown; the types of both being in the museum of the Academy of Natural Sciences of Philadelphia.

The writer some months ago, gave the varietal name *virgo* to specimens sent him for determination by Rev. H. W. Winkley,² and later the name *affinis*³ to another form.

Recently, with the assistance of Mr. H. E. Sargent, the various species and varieties have been re-examined and compared, with the result of finding that, in what has hitherto passed as "*H. labyrinthica*," there seem to be at least three well marked species. These species agree in general form and sculpturing, but differ in size, color, degree of depression, and especially in the *internal lamellæ* of

¹*Strobilops* Pilsbry, Proc. Acad. Nat. Sci. Phila., 1892, p. 403, *Strobila* Morse 1866, not *Strobila* Sars, 1833, nor *Strobilus* Anton, 1839.

²*Nautilus*.

³Proc. Acad. N. S. Phila., 1892, p. 404, (no description).